

WE CLAIM:

1. A sewing apparatus comprising:
  - a needle bar;
  - 5 a needle bar rocking mechanism for rocking the needle bar;
  - a thread cassette having a thread accommodating section for accommodating a thread;
  - a cassette mount to which the thread cassette is detachably attached;
  - a threading mechanism for passing the thread drawn from the thread
  - 10 cassette through a hole of a sewing needle mounted on the needle bar;
  - a detector for detecting the thread cassette ejected from the cassette mount; and
  - a needle bar position control unit controlling the needle bar rocking mechanism so that the needle bar is rocked so as to occupy a predetermined
  - 15 zigzag position, when the detector has detected the thread cassette ejected from the cassette mount.
2. A sewing apparatus according to claim 1, further comprising a thread feeding mechanism catching the thread drawn from the thread
- 20 cassette and carrying the thread near the needle hole when the thread cassette has been attached to the cassette mount, wherein the threading mechanism passes the thread having been carried by the thread feeding mechanism through the needle hole, and the predetermined zigzag position is set so as to correspond to a position of the thread feeding mechanism.
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3. A sewing apparatus according to claim 1, further comprising:
  - a needle bar up-down movement mechanism moving the needle bar up and down; and

a needle bar up-down movement stopping unit stopping the needle bar up-down movement mechanism when ejection of the thread cassette from the cassette mount is detected during operation of the needle bar up-down movement mechanism.

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4. A sewing apparatus according to claim 1, further comprising:

a thread tensioning unit adjusting a tension of the thread drawn from the thread cassette attached to the cassette mount; and

10 a thread tension control unit controlling the thread tensioning unit so that the thread tensioning unit is opened when ejection of the thread cassette from the cassette mount is detected by the detector during operation of the needle bar up-down movement mechanism.

15 5. A sewing apparatus according to claim 1, wherein the detector further detects the thread cassette having been attached to the cassette mount, and the needle bar position control unit controls the needle bar rocking mechanism so that the needle bar is rocked so as to occupy a sewing start position, a predetermined period of time after attachment of the thread cassette to the cassette mount is detected by the detector.

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6. A sewing apparatus according to claim 5, wherein the predetermined period of time is 30 msec.

25 7. A sewing apparatus according to claim 4, wherein both the needle bar rocking mechanism and the thread tensioning unit are driven by a single pulse motor.

8. A sewing apparatus according to claim 3, further comprising a

spindle driving the needle bar up-down movement mechanism and a spindle rotation angle detector detecting a rotation angle of the spindle, wherein the needle bar up-down movement stopping unit stops the needle bar up-down movement mechanism within a predetermined range of rotation angle so that  
5 the needle thread is stopped at an up-down position where the thread can be passed through the needle hole by the threading mechanism, based on a result of detection by the spindle rotation angle detecting unit.

9. A sewing apparatus according to claim 8, wherein the  
10 predetermined range of rotation angle is from 20 to 50 degrees.

10. A needle bar position control program for controlling a position of a needle bar in a sewing apparatus including a needle bar, a needle bar rocking mechanism for rocking the needle bar, a thread cassette having a  
15 thread accommodating section for accommodating a thread, a cassette mount to which the thread cassette is detachably attached, a threading mechanism for passing the thread drawn from the thread cassette through a hole of a sewing needle mounted on the needle bar, and a detector for detecting the thread cassette ejected from the cassette mount, the program  
20 accomplishing a function of controlling the needle bar rocking mechanism so that the needle bar is rocked so as to occupy a predetermined zigzag position, when the detector has detected the thread cassette ejected from the cassette mount.